

Analytics MarketScan® database, inpatient costs from the Healthcare Cost and Utilization Project (HCUP) and costs reported for Ambulatory Patient Classifications (APC) were used to estimate costs from the hospital perspective. **RESULTS:** 13,463 patients were evaluated. Rates of patients experiencing any complication were 17.3% within 30 days, 11.0% within 31–60 days, 8.1% within 61–90 days, and 21.4% within 91 days – 12 months. In total, 37.8% of patients experienced a complication over 12 months. The most frequent complications over 12 months were infection (16.6%), bowel obstruction/ other GI complication (12.6%), skin/connective tissue-related complications (10.7%), and wound complications (8.1%). Complication-related cost over time followed a similar trend; average 12 month cost for patients experiencing an infection was \$20,679, \$21,558 for bowel-related complications, \$14,950 for skin/ connective tissue related complications and \$19,230 for wound complications. The index event average length of stay for patients with no complications and patients with complications was 3.9 (sd 4.4) and 17.0 (sd 19.6), respectively;  $p < 0.0001$ . **CONCLUSIONS:** Health care resource utilization, costs and complications for complex abdominal wall reconstruction patients increase over time. Resource utilization is exacerbated when complications occur. Further study may be required to validate these findings.

#### PHP88

##### THE GROWING FINANCIAL AND QUALITY-OF-LIFE BURDEN ASSOCIATED WITH ATRIAL FIBRILLATION (AF), DIABETES, CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) AND ASTHMA IN IRELAND

Daacke IM

Boehringer Ingelheim UK, Bracknell, UK

Many people in Ireland suffer from chronic diseases including AF, diabetes, COPD and asthma. With the prevalence of these conditions expected to rise, general wellbeing and quality-of-life will be increasingly affected. Chronic conditions also account for most of the health care resources used, and represent a significant economic burden for Ireland in the future. **OBJECTIVES:** Estimate the number of preventable disease associated events and costs associated with poor management of patients with AF, diabetes, COPD and asthma. **METHODS:** For each province, calculate the number of patients diagnosed with AF, diabetes, COPD or asthma, based on disease prevalence and 2011 Census data. Estimate the number of patients not achieving target management of their condition and the associated number of preventable events and total costs, using publically available information. **RESULTS:** Of the approximately 59,647 patients diagnosed with AF in Ireland, 23,561 patients are not receiving appropriate anticoagulation treatment. This results in 531 patients experiencing an avoidable stroke each year, costing the health care system around €9.3m. Amongst the 238,589 patients diagnosed with type 2 diabetes, 77% will not achieve a target HbA1c of 6.5% or less, resulting in an expense of €886m and 12,493 avoidable deaths each year. In addition, 30% of diagnosed COPD patients, and as many as 60% of asthma patients, are not managing their condition effectively, costing the Irish health care system €899m per year in hospital admission costs alone. **CONCLUSIONS:** Much of the chronic disease burden is caused by preventable risk factors. This is intended as a key policy lever, to elevate chronic diseases on the health agenda of key policymakers, providing them with better evidence about risk factor control, and persuading them of the need for health systems change. Unless steps are taken now to effectively deal with chronic diseases, Ireland is headed for serious financial and quality-of-life crises.

#### PHP89

##### WHAT IS WORKING WELL IN LOUISIANA FOR US EMPLOYERS: A DESCRIPTIVE ANALYSIS OF EMPLOYERS ACTIVELY ENGAGED IN PROMOTING EMPLOYEE HEALTH

Copher R<sup>1</sup>, Tolbert C<sup>2</sup>, Li X<sup>1</sup>, Wang Z<sup>3</sup>

<sup>1</sup>Eisai, Inc., Woodcliff Lake, NJ, USA, <sup>2</sup>Louisiana Business Group on Health, Baton Rouge, LA, USA, <sup>3</sup>Eisai Inc., Woodcliff Lake, NJ, USA

**OBJECTIVES:** As health care costs continue to rise, employers seek options to improve the health and wellness of their employees. This study examined the practices of employers that are actively engaged in promoting employee health. **METHODS:** A study of 18 employers who applied for the Working Well award provided by the Louisiana Business Group on Health in 2013, recognizing employers who are exemplar in their employee health and wellness activities. Applicants completed a survey detailing business policies and programs intended to promote wellness. De-identified data derive from 2013 applications. **RESULTS:** Over half of the companies had fewer than 500 employees (55.6%), 4 had more than 2000. Health plan coverage was fully (8; 44.4%) or self (7; 38.9%) funded. Almost half implemented wellness programs within the last 3 years (44.4%), whereas 4 (22.2%) had programs more than 10 years; all were company funded. Annual spend on wellness was split across participating employers with 55.6% spending < \$50,000 and the rest > \$50,000 (8; 44.4%). Rationale most cited for programs: improve employee wellbeing (18; 100%), contain health care costs (17; 94.4%), increase productivity (13; 72.2%), and reduce absenteeism (12; 66.7%). Most employers incentivized program participation (16; 88.9%) through premium reductions (8; 44.4%), cash (8; 44.4%), or PTO (3; 16.7%). Information most reported to help with wellness planning were health risk assessments (HRAs) (15; 83.3%), health care claims and utilization (14; 77.8%), and worker's compensation claims (8; 44.4%). **CONCLUSIONS:** In the US, employers are responsible for a significant portion of health care spend. Though a small self-selected sample, this analysis reveals that employers actively engaging their employees, using prevention and incentives to promote wellness are a more recent occurrence. The trend suggests increasing awareness that efforts to improve employee health and wellness can help attract and retain staff, as well as potentially reducing health care costs.

#### PHP90

##### A QUANTIFICATION OF EXPENDITURE ON HOSPITAL STAYS IN 5 EUROPEAN COUNTRIES

Waterman J, Gavaghan M

GfK Market Access, Wayland, MA, USA

**OBJECTIVES:** Throughout Europe, economic conditions are forcing health care systems to reduce costs. One primary driver of health care costs is hospital length of stay (LOS). This study sought to determine which European countries have been most successful at reducing their average LOS for five inpatient admissions. This research also sought to quantify the potential savings for countries that have not been as successful in reducing their average LOS if they can align with their peers. **METHODS:** A review of hospital LOS and cost per day of hospital stay data was conducted in five European countries (France, Germany, Italy, Spain and the United Kingdom), utilizing data published by the World Health Organization (WHO). Additionally, hospital payment systems were assessed in each country through published research to understand systemic motivations of health care providers with regards to LOS. **RESULTS:** Substantial variability exists in average LOS for the studied admissions. The greatest variability was in breast cancer, with average stays ranging from 4.36 days in the UK to 11.01 days in Germany. The average LOS for three admissions (single spontaneous delivery, cataracts, and pneumonia) are relatively similar across countries. However, the average LOS in Germany for malignant neoplasm of the breast and acute myocardial infarction are significantly higher than the other four countries. There is little variability, however, in average costs per bed-day in the target countries. A review of payment mechanisms for inpatient stays revealed that hospitals are financially incentivized to minimize LOS in all five countries. **CONCLUSIONS:** Additional research is needed to understand the reason for the discrepancy between German stays and the other four countries. While there are many potential reasons for the differences, should Germany align their average LOS for malignant neoplasm of the breast and acute myocardial infarction with the other four countries, they could save €744 million per year.

#### PHP91

##### R&D INVESTMENTS, INTANGIBLE CAPITAL AND PROFITABILITY IN THE PHARMACEUTICAL INDUSTRY

Goncharov I<sup>1</sup>, Mahlich J<sup>2</sup>, Yurtoglu B<sup>1</sup>

<sup>1</sup>WHU-Otto Beisheim School of Management, Vallendar, Germany, <sup>2</sup>Janssen-Pharmaceutical companies of Johnson & Johnson, Neuss, Germany

**OBJECTIVES:** The pharmaceutical industry is in the center of political debate due to their high profitability. In this study, we argue that abnormal profitability in the pharmaceutical industry is a kind of optical illusion created by accounting standards and their influence on reported accounting profit and book equity – the two components of ROE. The internationally accepted accounting frameworks either do not permit capitalizing R&D investments as U. S. GAAP or limit capitalizing R&D investments as International Financial Reporting Standards (IFRS) applicable in the E. U. and most countries. This treatment understates assets and equity, and can overstate reported profit because relevant cost components (amortization of R&D) are not deducted from revenues they generate. We empirically aim to estimate the magnitude of this accounting bias. **METHODS:** Based on international financial data of 413 pharmaceutical firms between 1972 and 2012, we assessed the “true” profitability of pharmaceutical firms by capitalizing R&D and amortizing it over the self-life of developed products. We use three amortization approaches (linear amortization, declining-balance amortization and amortization based on the empirical amortization rates). **RESULTS:** Corrected profit and equity figures lead to substantially lower long-term profitability of pharmaceutical firms. Over the three proposed amortization approaches, the corrected ROE of 14.1% is comparable to profitability reported by U. S. firms from other industries (ROE = 11.1%). Non-U. S. pharmaceutical firms also have an adjusted ROE that is comparable to firms from other industries (7.6% pharma vs. 9.6% non-pharma). **CONCLUSIONS:** The policy implication of our study is that price regulation or rate of return regulation in the pharmaceutical market should be reviewed and applied with caution when it is solely motivated by the allegedly high profitability of the industry. This is especially true since such a policy also impedes R&D investments and innovation in the long run because profits serve as a major source of R&D investments.

#### PHP92

##### DO SPECIALTY DRUGS OFFER GREATER VALUE FOR MONEY THAN TRADITIONAL DRUGS?

Chambers JD, Thorat T, Chenoweth M, Pyo J, Neumann PJ

Tufts Medical Center, Boston, MA, USA

**OBJECTIVES:** Specialty drugs are often many times more expensive than traditional drugs, raising questions of affordability, and whether their clinical benefits are worth their added costs. The objective of this study was to consider new molecular entities (NME) (i. e., drugs that had not previously been approved by the FDA or marketed in the US) approved by the FDA from 1999 through 2011 to compare the value of specialty and traditional drugs. **METHODS:** We searched the FDA website to identify all NMEs approved from 1999 through 2011. We identified published estimates of additional health gains (measured in quality adjusted life years (QALYs)) and costs (drug costs, hospitalization costs, etc) associated with specialty drugs compared to existing standard of care at their time of approval, and compared findings with traditional drugs. We compared incremental QALY gains, incremental costs, and the incremental cost-effectiveness ratio, for specialty vs. traditional drugs using a Mann Whitney U test. **RESULTS:** We identified relevant estimates of additional health gains and costs for 101 (36%) of NMEs, including 59 specialty drugs. We found specialty drugs offered greater QALY gains than traditional drugs (0.19 vs. 0.01,  $p < 0.01$ ), but were associated with greater additional costs (\$10,460 vs. \$906,  $p < 0.01$ ). We found the cost-effectiveness of the different drug types to be broadly similar ( $p = 0.58$ ). **CONCLUSIONS:** This research suggests specialty drugs may offer greater health benefits over existing care than traditional drugs, and despite specialty drugs being associated with greater costs, specialty and traditional drugs were comparable in terms of cost-effectiveness. As payers search for ways to control health care costs it is important to recognize the relative benefits as well as the costs of specialty drugs, and to mitigate inappropriate use and waste to ensure that effective treatments are affordable to patients.